



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,739	08/28/2003	Cynthia L. Ebner	D-43671-01	5899

7590 07/22/2004  
Howard Troffkin  
7808 Ivey Mount Terrace  
Potomac, MD 20854

EXAMINER
----------

ZACHARIA, RAMSEY E

ART UNIT	PAPER NUMBER
----------	--------------

1773

DATE MAILED: 07/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/649,739	<b>Applicant(s)</b> EBNER ET AL.	
	<b>Examiner</b> Ramsey Zacharia	<b>Art Unit</b> 1773	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/13/2003</u> | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Specification*

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### *Claim Objections*

2. Claims 8 and 18 are objected to because of the following informalities: "6wherein" should be replaced with --6 wherein-- in claim 8 and "11 wherein" should be replaced with --11 wherein-- in claim 18. Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:  

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. The formula for unit (A) recited in independent claims 1, 6, and 11 render the claims indefinite because the relationship between the structure and components A and B is unclear. It is not clear if A and B are covalently bound to the carbon atoms of the carbon-carbon double bond or associated through another type of bond such as an ionic or hydrogen bond.

*Allowable Subject Matter*

6. Claims 1-22 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

7. The following is a statement of reasons for the indication of allowable subject matter.

Claims 1-22 are drawn to an oxygen scavenging composition and a film and laminate comprising the oxygen scavenging composition. The oxygen scavenging composition comprises a transition metal salt, compound, or complex and a condensation polymer that is derived from the three distinct units (A), (B), and (C) recited in the claims. Unit (B) is an anion comprising a sulfonyl or carbonyl pendent group with an alkali metal or alkaline earth metal cation.

Cahill et al. (U.S. Patent 6,083,585) represents the closest prior art. Cahill et al. teach an oxygen scavenging composition comprising a condensation polymer (column 5, line 65-column 6, line 11). The polymer is formed from units I and II which correspond to instant units (A) and (C), respectively (column 7, lines 3-40). The polymer further comprises a scavenging oligomer having terminal functional groups that are capable of entering into polycondensation reactions (column 12, lines 17-63). This scavenging oligomer corresponds to instant unit (B) in that it comprises a body of a non-aromatic hydrocarbon group [R in formula (B)] and terminal hydroxyl, carboxyl, or amine functional groups [F in formula (B)]. However, Cahill et al. do not teach that their oligomer comprises a sulfonyl or carboxyl pendent group or that it is associated with an alkali metal or alkaline earth metal cation. Rather, Cahill et al. teach that their oligomer is a polyolefin, preferably polypropylene, poly(4-methyl)1-pentene, or polybutadiene, or a polypropylene oxide glycol oligomer (column 10, lines 10-45). Moreover, there is nothing in

Art Unit: 1773

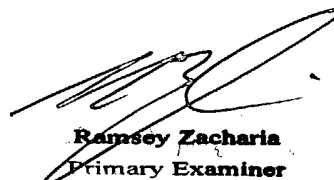
Cahill et al. suggesting or motivating one skilled in the art to replace the polyolefin or polypropylene oxide glycol oligomer with a unit comprising a sulfonyl or carboxyl pendent group associated with an alkali metal or alkaline earth metal cation.

### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramsey Zacharia whose telephone number is (571) 272-1518. The examiner can normally be reached on Monday through Friday from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau, can be reached on (571) 272-1516. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**Ramsey Zacharia**  
Primary Examiner  
Art Unit 1700